

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)
2. **(currently amended)** The GaN-based semiconductor light emitting diode as set forth in claim [[1]] 7,
wherein the alloy layer is made of one hydrogen-storing alloy selected from the group consisting of Mn-based hydrogen-storing alloys, La-based hydrogen-storing alloys, Ni-based hydrogen-storing alloys and Mg-based hydrogen-storing alloys.
3. (original) The GaN-based semiconductor light emitting diode as set forth in claim 2,
wherein the Mn-based hydrogen-storing alloy is MnNiFe or MnNi.
4. (original) The GaN-based semiconductor light emitting diode as set forth in claim 2,
wherein the La-based hydrogen-storing alloy is LaNi₅.
5. (original) The GaN-based semiconductor light emitting diode as set forth in claim 2,
wherein the Ni-based hydrogen-storing alloy is ZnNi or MgNi.

6. (original) The GaN-based semiconductor light emitting diode as set forth in claim 2,

wherein the Mg-based hydrogen-storing alloy is ZnMg.

7. (previously presented) A GaN-based semiconductor light emitting diode comprising:

a substrate on which a GaN-based semiconductor material is grown;

a lower clad layer formed on the substrate, and made of a first conductive GaN semiconductor material;

an active layer formed on a designated portion of the lower clad layer, and made of an undoped GaN semiconductor material;

an upper clad layer formed on the active layer, and made of a second conductive GaN semiconductor material; and

an alloy layer formed on the upper clad layer, and made of a hydrogen-storing alloy;

wherein the alloy layer has a thickness of 10Å to 100Å.

8. (currently amended) The GaN-based semiconductor light emitting diode as set forth in claim [[1]] 7, further comprising:

a first metal layer formed on the alloy layer, and made of one metal selected from the group consisting of Au, Pt, Ir and Ta.

9. (original) The GaN-based semiconductor light emitting diode as set forth in claim 8,

wherein the first metal layer has a thickness of 100Å or less.

10. (original) The GaN-based semiconductor light emitting diode as set forth in claim 8,

wherein the first metal layer has a thickness the same as or larger than that of the alloy layer.

11. **(currently amended)** The GaN-based semiconductor light emitting diode as set forth in claim [[1]] 7, further comprising:

a second metal layer formed on the alloy layer, and made of one metal selected from the group consisting of Rh, Al and Ag.

12. **(original)** The GaN-based semiconductor light emitting diode as set forth in claim 11,

wherein the second metal layer has a thickness of 500Å to 10,000Å.

13. **(withdrawn)** A method for manufacturing a GaN-based semiconductor light emitting diode comprising the steps of:

- (a) preparing a substrate on which a GaN-based semiconductor material is grown;
- (b) forming a lower clad layer, made of a first conductive GaN semiconductor material, on the substrate;
- (c) forming an active layer, made of an undoped GaN semiconductor material, on the lower clad layer;
- (d) forming an upper clad layer, made of a second conductive GaN semiconductor material, on the active layer;
- (e) removing designated portions of the upper clad layer and the active layer so as to expose a portion of the lower clad layer; and
- (f) forming an alloy layer made of a hydrogen-storing alloy on the upper clad layer.

14-36. **(canceled)**

37. **(previously presented)** The GaN-based semiconductor light emitting diode as set

forth in claim 7, wherein the alloy layer is made of one hydrogen-storing alloy selected from the group consisting of ZnNi and ZnMg.

38. (previously presented) The GaN-based semiconductor light emitting diode as set forth in claim 7, further comprising:

a metal layer on an upper surface of the alloy layer; and

an electrode layer on an upper surface of the metal layer;

wherein said electrode layer occupies only a middle region of the upper surface of said metal layer without covering a peripheral region of the upper surface of said metal layer, said peripheral region surrounding said middle region.

39. (canceled)

40. (new) The GaN-based semiconductor light emitting diode as set forth in claim 7, wherein the hydrogen-storing alloy is MnNiFe.

41. (new) The GaN-based semiconductor light emitting diode as set forth in claim 7, wherein the hydrogen-storing alloy is ZnNi.